CLAIMS

1. A generating apparatus that generates, based on a first volume image for a first disc, a second volume image for a second disc, the generating apparatus comprising:

a conversion unit operable to convert first scenario data written under a first scenario-description scheme for the first disc, into second scenario data written under a second scenario-description scheme for the second disc; and

a formatting unit operable to obtain the second volume image that contains a digital stream and the second scenario data that has been obtained by the conversion unit.

2. The generating apparatus of Claim 1, wherein

the first scenario data is path information defining a playback path of a digital stream contained in the first volume image, and the second scenario data is path information defining a playback path of the digital stream contained in the second volume image, each playback path being comprised of one or more logical playback sections,

under the first scenario-description scheme, playback sections are defined by information specifying starting address and playback time length, and

the conversion performed by the conversion unit is to replace the information specifying starting address and playback time length with starting-time information and

ending-time information.

3. The generating apparatus of Claim 2, wherein

the digital stream contained in the second volume image includes a plurality of access units,

the generating apparatus includes a generating unit operable to generate entry maps that each indicate, for each access unit, a starting time and a starting address, and

the path information for the second disc indicates starting/ending addresses of each playback section, by indirect reference via the entry maps.

4. The generating apparatus of Claim 1, wherein

the digital stream contained in the first volume image and the digital stream contained in the second volume image respectively are paired with corresponding path information to constitute a title,

the first scenario data and the second scenario data are respectively a jump table that a playback apparatus refers to when jump is performed from an entire menu of the corresponding disc to the corresponding title,

the first scenario-description scheme allows two jump tables: a first table for the entire first disc; and a second table that is created for a domain that the title belongs to, and

the conversion performed by the conversion unit is to

replace the first and second tables with one jump table for the entire second disc.

5. The generating apparatus of Claim 4, wherein

two or more titles that share same image/audio attributes belong to the domain.

6. The generating apparatus of Claim 5, wherein

the domain is assigned attribute information representing image/audio attributes of the titles that belong to the domain, and

the generating apparatus includes a generating unit operable to generate attribute information for the digital stream contained in the second volume image, based on the attribute information assigned to the domain.

7. The generating apparatus of Claim 1, wherein

the first scenario data and the second scenario data are respectively one or more commands that have been incorporated in the corresponding digital stream, and

the first scenario-description scheme and the second scenario-description scheme are respectively a scheme under which the corresponding commands are described.

8. The generating apparatus of Claim 7, wherein

the commands incorporated in the digital stream of the

first volume image include a combining command for making a playback apparatus execute two or more processes, and

the conversion performed by the conversion unit is to replace the combining command with a number of commands, the number corresponding to a number of processes to be executed according to the combining command.

9. The generating apparatus of Claim 7, wherein

the commands incorporated in the digital stream of the first volume image include a jump command that orders a playback apparatus to jump to another area of the first disc, and

the conversion performed by the conversion unit is to replace the jump command with one or more commands.

10. A generating apparatus that generates, based on a first volume image for a first disc, a second volume image for a second disc which is a recordable disc, the generating apparatus comprising:

a conversion unit operable to convert first scenario data written under a first scenario-description scheme for the first disc, into second scenario data written under a second scenario-description scheme for the second disc; and

a writing unit operable to write, to the second disc, the second scenario data that the conversion unit has obtained, in association with a digital stream for the second disc.

11. A computer-readable program that makes a computer perform procedures for generating, based on a first volume image for a first disc, a second volume image for a second disc, the computer-readable program being for executing:

a conversion step of converting first scenario data written under a first scenario-description scheme for the first disc, into second scenario data written under a second scenario-description scheme for the second disc; and

a formatting step of obtaining the second volume image that contains a digital stream and the second scenario data that has been obtained at the conversion step.

12. The computer-readable program of Claim 11, wherein

the first scenario data is path information defining a playback path of a digital stream contained in the first volume image, and the second scenario data is path information defining a playback path of the digital stream contained in the second volume image, each playback path being comprised of one or more logical playback sections,

under the first scenario-description scheme, playback sections are defined by information specifying starting address and playback time length, and

the conversion performed at the conversion step is to replace the information specifying starting address and playback time length with starting-time information and ending-time information.

13. The computer-readable program of Claim 12, wherein

the digital stream contained in the second volume image includes a plurality of access units,

the computer-readable program is further for executing a generating step of generating entry maps that each indicate, for each access unit, a starting time and a starting address, and

the path information for the second disc indicates starting/ending addresses of each playback section, by indirect reference via the entry maps.

14. The computer-readable program of Claim 11, wherein

the digital stream contained in the first volume image and the digital stream contained in the second volume image respectively are paired with corresponding path information to constitute a title,

the first scenario data and the second scenario data are respectively a jump table that a playback apparatus refers to when jump is performed from an entire menu of the corresponding disc to the corresponding title,

the first scenario-description scheme allows two jump tables: a first table for the entire first disc; and a second table that is created for a domain that the title belongs to, and

the conversion performed at the conversion step is to

replace the first and second tables with one jump table for the entire second disc.

15. The computer-readable program of Claim 14, wherein two or more titles that share same image/audio attributes belong to the domain.

16. The computer-readable program of Claim 15, wherein the domain is assigned attribute information representing image/audio attributes of the titles that belong to the domain, and

the computer-readable program is further for executing a generating step of generating attribute information for the digital stream contained in the second volume image, based on the attribute information assigned to the domain.

17. The computer-readable program of Claim 11, wherein the first scenario data and the second scenario data are respectively one or more commands that have been incorporated in the corresponding digital stream, and

the first scenario-description scheme and the second scenario-description scheme are respectively a scheme under which the corresponding commands are described.

18.The computer-readable program of Claim 17, wherein the commands incorporated in the digital stream of the

first volume image include a combining command for making a playback apparatus execute two or more processes, and

the conversion performed at the conversion step is to replace the combining command with a number of commands, the number corresponding to a number of processes to be executed according to the combining command.

19. The computer-readable program of Claim 17, wherein

the commands incorporated in the digital stream of the first volume image include a jump command that orders a playback apparatus to jump to another area of the first disc, and

the conversion performed at the conversion step is to replace the jump command with one or more commands.

20. A computer-readable program that generates, based on a first volume image for a first disc, a second volume image for a second disc which is a recordable disc, the computer-readable program being for executing:

a conversion step of converting first scenario data written under a first scenario-description scheme for the first disc, into second scenario data written under a second scenario-description scheme for the second disc; and

a writing step of writing, to the second disc, the second scenario data that has been obtained at the conversion step, in association with a digital stream for the second disc.